

REMARKS

This Amendment is responsive to the final Office Action¹ of November 3, 2006. A response was not filed within the six month statutory period and the application went abandoned. A petition to revive accompanies this paper.

Claims 1, 3, 5-10, 13-18, and 22-32 were presented for examination. All claims were rejected as detailed below. Claims 1, 10, 18 and 28 are independent claims. No claims are added or canceled. Claims 1, 3, 5-10, 13-18 and 22-32 are pending.

The Rejections:

Claims 1, 3, 5, 9, 28 and 30-32 are rejected under 35 U.S.C. §103(a) as being un-patentable over Farris et al., U.S. Patent No. 5,751,789 (referred to hereinafter as "Farris") in view of Minarczik et al., U.S. Patent No. 5,790,631 (referred to hereinafter as "Minarczik").

Claim 6 is rejected under 35 U.S.C. §103(a) as being un-patentable over Farris in view of Minarczik and further in view of well known Prior Art (MPEP 2144.05).

Claim 7 is rejected under 35 U.S.C. §103(a) as being un-patentable over Farris in view of Minarczik and further in view of Ehreth U.S. Patent No. 6,246,750 B1 (referred to hereinafter as "Ehreth").

Claim 8 is rejected under 35 U.S.C. §103(a) as being un-patentable over Farris in view of Minarczik and further in view of McKenna et al. U.S. Patent No. 6,829,486 B2 (referred to hereinafter as "McKenna").

¹ The Office Action may contain a number of statements characterizing the prior rejections and/or the claims which Applicant may not expressly identify herein. Regardless of whether or not any such statement is identified herein, Applicant does not automatically subscribe to, or acquiesce in, any such statement. Further, with regard to rejection of a dependent claim, when such claim depends directly or indirectly from an independent claim which Applicant claims allowable for reasons provided herein, is not acquiesced to such rejection of that dependent claim, but is recognized by Applicant that such previously lodged rejection is most based on similarities and/or distinctions previously known to that independent claim.

Claims 10, 14, 15, 16 and 17 are rejected under 35 U.S.C. §103(a) as being un-patentable over Cardina et al., U.S. 2004/0214569 A1 (referred to hereinafter as "Cardina") in view of Minarczik and Sendrowicz U.S. 2003/0134598 A1 (referred to hereinafter as "Sendrowicz").

Claim 13 is rejected under 35 U.S.C. §103(a) as being un-patentable over Cardina in view of Minarczik and Sendrowicz, and further in view of well known prior art (MPEP 2144.05).

Claims 18 and 23-26 are rejected under 35 U.S.C. §102(e) as being *anticipated* (?) by Cardina in views of Sendrowicz and Minarczik et al. *[As previously noted in the last prior response, Applicant is again interpreting this to mean - rejected under 35 U.S.C. §103(a) as being un-patentable over Cardina in view of Sendrowicz and Minarczik because of the discussion of at least claim 18 in the body of the Office Action, pgs. 10-12].*

Claim 22 is rejected under 35 U.S.C. §103(a) as being un-patentable over Cardina in views of Sendrowicz and Minarczik and further in view of well known Prior Art (MPEP 2144.05).

Claim 27 is rejected under 35 U.S.C. §103(a) as being un-patentable over Cardina in views of Sendrowicz and Minarczik, and further in view of McKenna.

Claim 29 is rejected under 35 U.S.C. §103(a) as being un-patentable over Farris in view of Minarczik, and further in view of Patron et al., (U.S. 2005/0063333 A1) (referred to hereinafter as "Patron").

Applicant respectfully traverses these rejections for the following reasons. Minarczyk is cited in every rejection listed above and Minarczyk is deficient with respect to the language recited in all of Applicant's claims because it does not show a wireless solution to a broken wireline problem that involves wireless nodes of other subscribers. Rather, it shows a wireless solution to a broken wireline problem that involves wireless nodes dedicated only to the subscriber with the broken wireline. Therefore, Minarczyk, contrary to the position taken in the Office Action, does not disclose or suggest a wireless connection between the subscriber's (customer's) premises (where the wireline is broken) and the premises of a neighbor to that subscriber, and Applicant shall prove this in the discussion which follows.

MINARCZIK BACKGROUND ART - WIRELINE SOLUTION TO BROKEN WIRE

But first, consider what may be establishing the confusion with respect to the wireless operation of Minarczik. It is quite true that in Minarczik's Background Art section, it discusses a wireline solution to a broken wireline problem that does involve a neighbor's wireline that isn't broken. In column 2, lines 25-42 it discloses that each wireline running from its appropriate position at a terminal block (see Fig. 3 for the terminal block, discussed below) inside a telephone company's pedestal (PED 15, Fig. 1, Minarczik) to its respective subscriber's (customer's) premises has a "spare pair" of wires that are not used.

One such temporary repair involves providing a connection to a spare pair of wires running to a neighbor's premises. Typically the drop cable from the telephone line terminal (in the pedestal in this example) comprises an active twisted wire pair carrying a subscriber's telephone service signals and at least one spare pair. The technician can open the telephone line terminal housing (aerial terminal or pedestal housing) and connect the neighbor's spare pair in place of the cut line. The technician then connects a new cable to the spare pair in the neighbor's NID, runs the new cable across the ground to the subscriber's NID, and connects the new cable in that NID in place of the cut drop cable. The temporary line is exposed. Persons walking on either the subscriber's property or the neighbor's property may trip or entangle themselves in the exposed line cable. The exposed cable also is subject to damage, for example, a person mowing the grass may cut the temporary replacement cable. (Minarczik, col. 2, lines 25-42)

Thus, the wireline solution does make use of the neighbor's spare pair of wires. The technician goes into PED 15, removes the wires from the terminal block that were going to the subscriber with the broken wireline, substitutes the neighbor's spare pair of wires at that position on the terminal block, and then runs another wire on top of the ground from the neighbor's network interface device (e.g., NID 19a, Fig. 1, Minarczik) to the subscriber's network interface device (e.g., NID 19b, Minarczik). This is a wireline jumper solution circumventing broken wireline 17b that can be connected from PED15 to NID 19b by way of NID 19a (see Fig. 1 and col 2, lines 25-42 of Minarczik). Clearly this solution does involve a neighbor, but this solution is a wireline solution, not a wireless solution. The wireless solution is completely different.

Therefore, in terms of confusion in interpreting wireless operation of Minarczik, with the above wireline solution methodology in mind, one might, at first glance at Fig. 2, assume that the wireless solution also makes use of its neighbor, but that isn't the case. Indeed, after a bit of

scrutiny, it is clear that there is no such wireless connection. In fact, with reference to Fig. 2, the only wireless connection disclosed in Minarczik is from NID 19b (the subscriber) directly to wireless device 29 which, in turn, wirelessly communicates with transceiver 25 which, in turn, is connected directly to a subscriber dedicated line from the network service provider (telephone company) and connected to the terminal block (not shown in Fig. 2) in the telephone company's pedestal (PED 15). This wireless connection is essentially a "wireless jumper" which jumps over the broken wireline, while avoiding any wireless connection to the neighbor's premises.

MINARCZIK FIG. 1:

In further detail, returning to Fig. 1 End Office Switching System 11 is the local telephone company's property and operation and it is connected via its cable 13 (containing multiple subscriber lines) to its own pedestal PED 15.

"In the illustrated example, a number of lines run in a bundle 13 from the end office switch 11 to a telephone line terminal or network terminal." (Minarczik, col. 5, lines 13-15)

"In the illustrated example, the terminal is housed in a pedestal 15. Typically, a portion or all of the cable run 13 from the switch 11 to the pedestal 15 may be underground. The pedestal 15 provides a terminal connection from the bundle of lines 13 to a number of subscriber drop cables 17." (Minarczik, col. 5, lines 23- 28)

Thus, in Fig. 1, 17a is one drop cable set that connects from one position on the terminal block (not shown in Fig. 1) located inside pedestal 15 through an NID to one subscriber's telephone, i.e., telephone 23a (the neighbor). Similarly, 17b is another drop cable set that, when un-broken, connects from a different position on that terminal block through a different NID to another subscriber's telephone, i.e., telephone 23b, etc. It is apparent that there is no communicative connection between drop cables 17a and 17b when they are connected to their respective positions on the terminal block inside PED 15. (The terminal block shall be discussed in detail with respect to Fig. 3 below.)

MINARCZIK FIG. 2:

The Examiner indicated that Fig. 2 in Minarczik shows a wireless connection to the neighbor's PSTN (Office Action, page 2) but it does not show that at all. It is clear that base

station transceiver 25 is connected to pedestal 15. It is also true that pedestal 15 is connected via drop cable 17a to NID 19a and eventually to neighbor's telephone 23a. But inside PED 15 is a terminal block (shown in Fig. 3 and discussed below) that isolates the various cables from each other. For example, drop cable 17a is the neighbor's cable only which is connected at one position on the terminal block. Transceiver 25 is connected to the terminal block inside PED 15 at a different position which was where cable 17b was connected and which is isolated from drop cable 17a. In other words, cable 17a emanates from a position in the terminal block (not shown in Fig. 2) which is different from the position to which drop cable 17b was connected, and cable 17a does not carry any information of the subscriber associated with telephone 23b.

MINARCZIK FIG. 3 - TERMINAL BLOCK 33:

The isolation between cables 17a and 17b is made crystal clear in Fig. 3 of Minarczik. Terminal Block 33 is included within pedestal PED 15, shown at the upper left of Fig. 3. Terminal block 33 shows multi-conductor cable 13 which, in Fig. 2, is shown coming from End Switching Office 11. Each conductor in cable 13 goes to a different terminal block position, each position being isolated from the others. Terminal block 33 shows multiple cables going out to various customer premises. For example, it clearly shows drop cable 17a which is the cable connecting to NID 19a (which connects to neighbor's telephone 23a) in a top-most position at terminal block 33. It also clearly shows cable 17b', connecting to base station transceiver 25, in a bottom-most position at terminal block 33, isolated from the top-most position. As stated in Minarczik:

"Undamaged drop cables, such as cable 17a, remain connected to the terminal block in the normal manner. However, the cut or damaged drop cable is disconnected from the terminal block 33 and replaced with a two wire connection 17b' to the base station transceiver 25. The base station transceiver 25 includes a telephone circuit 41, a radio transmitter 43, a radio receiver 45 and a duplexer 47." (Minarczik, col. 7, lines 12-18)

Clearly, transceiver 25 is connected to a position on terminal block 33 where cable 17b had been connected, and in a manner that is completely insulated/isolated from the position to which cable 17a is connected. Therefore the following position taken in the Office Action with respect to Minarczik is erroneous:

"The Examiner respectfully disagrees. It is clear that Minarczik (U.S. 5,790, 631) provides a wireless connection to a neighbor's PSTN as illustrated in figure 2. As taught in the background art (column 2, lines 13-42), the conventional method of providing a temporary repair to a customer interrupted telephone service was done using a pair of wires running (i.e., wired connection) to a neighbor's premises to the PSTN in place of a cut line (which causes the loss of service). Minarczik improves this method by using wireless transceivers (column 3, lines 46-51) instead of a cable exposed to the neighbor's property which has the disadvantage of being subject to damage because the line cable is exposed in the ground. Furthermore, the temporary repair provides the customer with a standard telephone line in which the customer can make and receive calls in a normal manner (col. 3, line 63-66).

Therefore it is clear that a neighbor's equipment/wiring is temporarily used for providing a temporary repair to reestablish a telephone service to another customer." (office action, pages 2-3)

Clearly, this statement is inaccurate. First of all, Minarczik does NOT provide a wireless connection to a neighbor's PSTN as stated in the first sentence quoted above, for reasons given earlier. Furthermore, it is clear that a neighbor's equipment/wiring is NOT temporarily used for providing a temporary repair to reestablish a telephone service to another customer as stated in the last sentence quoted above, for reasons given earlier.

APPLICANT'S CLAIMS:

With respect to independent claims 1 and 28, the Office Action admits that Farris is deficient and relies on Minarczik to cure that deficiency: "A wireless transceiver is positioned in the customer premises of the disabled drop cable which communicates with a wireless transceiver positioned in the customer premises of a subscriber with an enabled telephone line connection," (Office Action, pgs. 5 and 15, emphasis added). But, this is not true; as shown above with respect to Figs. 2 and 3 in Minarczik, the wireless transceiver by-passes the neighbor's (customer's) premises and communicates only with a dedicated transceiver wired to terminal block 33.

With regard to independent claims 8 and 18, the Office Action again admits that Cardina is deficient and relies on Minarczik to cure that deficiency: "Minarczik teaches that a disabled subscriber drop is replaced with a wireless transceiver for connection to the wireline service via a transceiver positioned at the neighbor premises for temporarily obtaining wireline service from the neighbor's wireline connection [citations]." (Office Action, pgs. 8 and 11, emphasis added) Again,

this is not true; there is no wireless interaction with the neighbor premises in Minarczik; the wireless transceiver by-passes the neighbor's customer premises. Transceiver 25 is positioned at the pedestal 15 and wired to terminal block 33 internal to pedestal 15, not to the neighbor.

Independent Claims 1 and 28:

Consider independent claims 1 and 28, which are rejected under 35 U.S.C. §103(a) as being un-patentable over Farris in view of Minarczik, in light of the above.

- Claim 1 recites, *interalia*: "wherein the wireless transceiver is configured to relay data from other wireless transceivers that have lost connectivity to the wireline network."
- Claim 28 recites, *interalia*: "wherein the wireless transceiver is configured to relay data from other wireless transceivers in the other NIUs when connectivity on their respective wireline connections fails."

On page 4 of the Office Action, the Examiner states that Farris fails to disclose this limitation of claim 1 and on page 15 of the Office Action the Examiner states that Farris fails to disclose this limitation of claim 28, and Applicant agrees with both statements. The Examiner then relies upon Minarczik to disclose:

"...a method in which a wireless transceiver connects to a telephone line network terminal, in place of a disabled drop cable, (abstract, lines 1-2); as shown in figure 2, a temporary repair is made using wireless transceivers. A wireless transceiver is positioned in the customer premises of the disabled drop cable which communicates with a wireless transceiver positioned in the customer premises of a subscriber with an enabled telephone line connection, this permit a person at the premises of a disabled cable to make and receive calls using the standard telephone station equipment (col. 6, lines 5-17, 34-42, 52-59).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention for the wireless transceiver be configured to relay data from other wireless transceivers that have lost connectivity to the wireline network as suggested by Minarczik, the motivation being to provide a temporary wireline service from the neighbors' wireline equipment."

(Office Action pgs 5 relative to claim 1 and pg. 15 relative to claim 28, underline emphasis added.) But, this is an erroneous interpretation of the operation of Minarczik. Contrary to the Office Action's above-quoted statement, there is no neighbors' wireline equipment involved in the

solution disclosed in Minarczik. A wireless transceiver in the customer premises of the disabled drop cable does not communicate with a wireless transceiver positioned in the customer premises of a subscriber with an enabled telephone line connection. Rather, Minarczik merely discloses a *wireless jumper* to bridge the gap or break in the wireline of the customer which is experiencing the telephone cable failure.

In Fig. 1 in Minarczik, cable 17b is shown by dashed lines as having been "cut." In Fig. 2 in Minarczik, a cordless transceiver 29 communicates via its antenna 31 to the antenna 27 of base station transceiver 25, merely *jumping* by wireless transmission over the "cut" wireline cable. Granted that a neighbor is shown in Fig. 2, but that neighbor is merely depicted in the Fig. and not involved in the wireless solution offered/taught by Minarczik. This is discussed clearly in Minarczik:

"More specifically, a technician disconnects the drop cable from a telephone line terminal (network terminal) of the customer's telephone line, i.e. at a point still connected to the telephone switching system serving the particular customer's line. In place of the drop cable, the technician connects a first wireless transceiver to the line through the telephone line terminal. The drop cable also is disconnected from a network interface device that is connected to customer premises telephone wiring. The technician then connects a second wireless transceiver to the customer premises telephone wiring, e.g. through the network interface device." (Minarczik, column 3, lines 52-62)

More specifically, the one technician opens the pedestal 15 and disconnects the damaged drop cable 17b. In its place, the technician connects a base station transceiver 25. The base station transceiver 25 sends and receives wireless telephone type signals, via an antenna 27. The technician also opens the NID 19b, and connects a cordless transceiver 29 in place of the drop cable. The cordless transceiver 29 sends and receives wireless telephone type signals, via an antenna 31. (Minarczik, column 6, lines 9-17)

These sections of Minarczik say that a technician removes the wireline cable ("drop cable") from a terminal (terminal block 33, Fig. 3) on the side of the cut cable that is connected to the telephone company's switching system (central office), and connects a first wireless transceiver to the terminal (base station transceiver 25 to the bottommost position on terminal block 33). Then, the technician disconnects the remaining wireline cable ("drop cable") from the customer's premises by removing it from a network interface device (19b) that is connected to the customer's premises wiring, and connects a second wireless transceiver (29) to the network interface device.

The result is that two wireless transceivers are now in wireless communication with each other, one being connected to a terminal with wireline connection back to the central office of the telephone company and the other being connected to a network interface device with wireline connection into the premises of the disrupted customer. Thus, the broken, or cut, "drop cable" has been effectively "*jumped*" by a wireless communication path. This has nothing at all to do with any neighbor's wireline or wireless connection, despite the appearance in Figs. 1 and 2 of Minarczik of "the neighbor." Therefore, the Office Action has clearly misinterpreted the teachings of this reference.

In view of the above, Minarczik, does not disclose or suggest : "wherein the wireless transceiver is configured to relay data from other wireless transceivers that have lost connectivity to the wireline network" as recited in claim 1. There are no other wireless transceivers involved in Minarczik.

Further, in view of the above, Minarczik does not disclose or suggest: "wherein the wireless transceiver is configured to relay data from other wireless transceivers in the other NIUs when connectivity on their respective wireline connections fails" as recited in claim 28. There are no other wireless transceivers involved in Minarczik.

As noted above, the Office Action admits that Farris² fails to disclose these claim elements. The other cited references which are cited for other reasons do not cure this deficiency of Minarczik. Therefore, the 35 U.S.C. § 103(a) rejection of claims 1 and 28 should be withdrawn and the claims allowed.

Independent Claims 10 and 18:

Claim 10, is rejected under 35 U.S.C. §103(a) as being un-patentable over Cardina in view of Minarczik and Sendrowicz. Claim 10 recites, *interalia*: "automatically establishing a connection to the network service provider over a wireless connection relayed via one or more

² Although Applicant has not substantively addressed applicability of Farris to any of the claim elements against which it is being applied because of the prior deficiency in Minarczik, Applicant does not acquiesce in the application of Farris to its claims and reserves its rights to refile Farris in subsequent responses if needed.

other network subscribers when the wireline connection fails." The Office Action, page 8, states that Cardina fails to disclose this limitation and Applicant agrees. The Examiner again relies upon Minarczik to show this limitation:

"Minarczik teaches that a disabled subscriber drop is replaced with a wireless transceiver for connecting to the wireline service via a transceiver positioned at the neighbor premises for temporarily obtaining wireline service from the neighbor's wireline connection (see Fig. 2, col. 6, lines 5-17, 34-42, 52-59)."

(Office Action pg. 8, emphasis added.) Again, this is an erroneous interpretation of the operation of Minarczik. There is no neighbor's equipment involved in the solution to the cut cable problem disclosed in Minarczik, for reasons given above with respect to claims 1 and 28.

In view of the above, Minarczik does not disclose or suggest "automatically establishing a connection to the network service provider over a wireless connection relayed via one or more other network subscribers when the wireline connection fails" as recited in claim 10. Since the Office Action admits that Cardina³ fails to disclose this limitation, and since Minarczik does not disclose or suggest this limitation per the above discussion, and since the other cited references, cited for other reasons, fail to cure this deficiency of Minarczik, the 35 U.S.C. § 103(a) rejection of claim 10 should be withdrawn and the claim allowed.

Independent Claim 18:

Claim 18 is understood to actually be rejected under 35 U.S.C. §103(a) as being unpatentable over Cardina in view of Sendrowicz and Minarczik (rather than rejected under "102").. Claim 18 recites, *inter alia*: "providing backup network connectivity via a wireless network implemented over a plurality of network nodes located at residences of subscribers of the network service provider by relaying data to a first node in the wireless network that has an active wireline connection to the network service provider." The Office Action, page 11, states that "The combination of Cardina and Sendrowicz does not expressly disclose wherein the backup network

³ Although Applicant has not substantively addressed applicability of Cardina to any of the claim elements against which it is being applied because of the major deficiency in Minarczik, Applicant does not acquiesce in the application of Cardina to its claims and reserves its rights to refute Cardina in subsequent responses if need be.

connectivity is provided by relaying data to a first node in the wireless network that has an active wireline connection to the network service provider." and Applicant agrees. The Examiner again relies upon Minarczik to show this limitation:

Minarczik teaches that a disabled subscriber drop is replaced with a wireless transceiver for connecting to the wireline service via a transceiver positioned at the neighbor premises for temporarily obtaining wireline service from the neighbor's wireline connection (see Fig. 2, col. 6, lines 5-17, 34-42, 52-59)."

(Office Action pg. 11, emphasis added.) Again, this is an erroneous interpretation of the operation of Minarczik. There is no neighbors' equipment involved in the solution to the problem of the cut cable in Minarczik, for reasons given above with respect to claims 1 and 28.

In view of the above, Minarczik does not disclose or suggest "providing backup network connectivity via a wireless network implemented over a plurality of network nodes located at residences of subscribers of the network service provider by relaying data to a first node in the wireless network that has an active wireline connection to the network service provider," as recited in claim 18. Since the Office Action admits that the combination of Cardina and Sendrowicz fails to disclose this limitation and since Minarczik does not disclose this limitation for reasons given above, and since the other cited references, which are cited for other reasons, fail to cure this deficiency of Minarczik, the 35 U.S.C. § 103(a) rejection of claim 18 should be withdrawn and the claim allowed.

All pending independent claims, claim 1, 10, 18 and 28 have been addressed and have been shown to be allowable over the references cited. Claims 3, 5-9, dependent from allowable claim 1, are allowable at least for reasons based on their dependency, directly or indirectly, from an allowable base claim. Claims 13-17, dependent from allowable claim 10, are allowable at least for reasons based on their dependency, directly or indirectly, from an allowable base claim. Claims 22-27, dependent from allowable claim 18, are allowable at least for reasons based on their dependency, directly or indirectly, from an allowable base claim. Claims 29-32, dependent from allowable claim 28, are allowable at least for reasons based on their dependency, directly or indirectly, from an allowable base claim.

All pending claims have been addressed hereinabove, and all have been shown to be allowable over the cited references. There may be additional reasons why the dependent claims are allowable over the cited references based on their individual recitations, and Applicant reserves its rights to argue for patentability of the dependent claims for these and other reasons.

In addition, in accordance with MPEP 2143 a *prima facie* case of obviousness can be refuted on the basis of any one of three criteria, and only one of those criteria is discussed herein. Applicant reserves its rights to argue for patentability of the claims herein based on any or all of these three criteria in subsequent responses.

CONCLUSION

Reconsideration and allowance are respectfully requested based on the above remarks. It is respectfully submitted that all claims and, therefore, this application are in condition for allowance.

If there are any remaining issues or if the Examiner believes that a telephone conversation with Applicant's attorney would be helpful in expediting the prosecution of this application, the Examiner is invited to call the undersigned at (508)-625-1323.

To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136 is hereby made, the fee for which should be charged to deposit account number 07-2347. Please charge any other fees due, or credit any overpayment made to that account.

Respectfully submitted,

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